

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of the claims in the application:

1. (Currently Amended) A metal sheet or metal sheet section comprising a lubricant coating, ~~wherein said lubricant is in particular corrosion protection oil, pre-lube, and/or dry-lube;~~
wherein
the metal sheet or the metal sheet section comprises a layer which is formed by the application onto the metallic surface of a solution containing an organic phosphoric acid water.
2. (Currently Amended) The metal sheet or metal sheet section according to Claim 1,
wherein
the organic phosphoric acid ester is a compound of the general formula



where X stands for hydrogen, Na, K, -NH₂, -NHR, -NR₂, -NH (R' -OH)₂ or -NR (R' -OH), R stands for a straight-chain or branched alkyl group with 1 to 14 carbon atoms, ~~in particular 1 to 8~~, R' stands for a straight-chain or branched alkyl group with 1 to 14 carbon atoms, ~~in particular 1 to 8~~, whereby one or more hydrogen atoms in R and R' can be substituted by a polymer or oligomer group
-Y-R, wherein Y stands for (CH₂-CH₂-O)_m or (CH₂-CH (CH₃-O)_m, with m = 1 to infinity, ~~and, in particular, m = 1 to 10~~, R and R' can in each case be equal or different, and n is a number from 0 to 3, with the proviso that n is not 0 if X stands exclusively for hydrogen.

3. (Currently Amended) The metal sheet or metal sheet section according to Claim 1 wherein
the organic phosphoric acid ester is a mixture of $(C_4H_9-O)OP(OH)_2$ and $(OH)PO(O-C_4H_9)_2$.
4. (Previously Presented) The metal sheet or metal sheet section according to Claim 1, wherein
the solution containing the organic phosphoric acid ester contains, as further components, a water-soluble organic sulphur compound and/or an organic molybdenum compound.
5. (Previously Presented) The metal sheet or metal sheet section according to Claim 4 wherein
the organic sulphur compound is selected from the group consisting of thiadiazolene, dithiocarbamates and dithiopropionates as well as salts and derivatives thereof.
6. (Previously Presented) The metal sheet or metal sheet section according to Claim 4, wherein
the organic sulphur compound is selected from the group consisting of Sodium-2-mercaptobenzothiazole, 2,5-dimercapto-1,3,4-thiadiazole, as well as salts and derivatives thereof, sodium dimethyl dithiocarbamate, potassium dimethyl dithiocarbamate and monoethanol amine dithiopropionate.
7. (Previously Presented) The metal sheet or metal sheet section according to Claim 6, wherein
the organic sulphur compound can be obtained by the conversion of molybdenum trioxide and/or molybdenic acid with an amine and/or alkanolamine.

8. (Previously Presented) The metal sheet or metal sheet section according to Claim 1 wherein the solution containing the phosphoric acid ester contains, as further components, at least one inorganic compound from the group consisting of polyphosphates, borates, molybdates and wolframates.
9. (Previously Presented) The metal sheet or metal sheet section according to Claim 8, wherein the inorganic compound is selected from the group consisting of ammonium triphosphate, sodium tetraborate, ammonium molybdate, sodium wolframate, potassium wolframate and sodium wolframate.
10. (Previously Presented) The metal sheet or metal sheet section according to Claim 1, wherein the layer formed by the solution containing the phosphoric acid ester is formed as a thin layer in the nano range.
11. (Currently Amended) The metal sheet or metal sheet section according to Claim 1, wherein a layer containing lubricant, ~~in particular a corrosion protection oil, pre-lube and/or dry-lube,~~ is formed on the layer formed by the phosphoric acid ester.
12. (Currently Amended) The metal sheet or metal sheet section according to Claim 11, wherein the layer containing lubricant is formed in a thickness from 0.3 to 3.0 g/m², ~~in particular 1 to 2 g/m².~~

13. (Currently Amended) The metal sheet or metal sheet section according to Claim 1,
wherein
the lubricant contains an organic phosphoric acid ester ~~such as defined heretofore~~ in a
quantity from 0.01 to 50% by weight, ~~in particular from 0.05 to 10% by weight.~~
14. (Currently Amended) The metal sheet or metal sheet section according to Claim 1,
wherein
the lubricant contains a water-soluble organic sulphur compound ~~as defined heretofore~~ in
a quantity from 0.005 to 30% by weight, ~~in particular from 0.01 to 5% by weight.~~
15. (Currently Amended) The metal sheet or metal sheet section according to Claim 1,
wherein
the lubricant contains an organic molybdenum compound ~~as defined heretofore~~ in a
quantity from 0.005 to 30% by weight, ~~in particular from 0.01 to 5% by weight.~~
16. (Currently Amended) The metal sheet or metal sheet section according to Claim 1,
wherein
the lubricant contains an organic compound ~~as defined heretofore~~ in a quantity from
0.005 to 30% by weight, ~~in particular from 0.01 to 5% by weight.~~
17. (Previously Presented) The metal sheet or metal sheet section according to Claim 1
wherein
the sheet is a coated or uncoated steel sheet.
18. (Currently Amended) The method for the manufacture of a metal sheet section according
to Claim 1, [[:]]
wherein
- Application of a solution ~~containing~~ including an organic phosphoric acid ester on
the upper and/or lower side of the sheet, and

- Applications of a lubricant onto the sheet coated in this way.

19. (Currently Amended) The method according to Claim 18,
wherein
the application of the solution ~~containing~~ including the organic phosphoric acid ester is
effected by immersion, spraying, brushing, or roll coating.
20. (Currently Amended) The method according to Claim 18,
wherein
the application of the solution ~~containing~~ including the organic phosphoric acid ester is
effected during the coating of the sheet in the flushing bath of a coating system or during
the cooling of the sheet in the bath of a water cooling system.
21. (Previously Presented) The method according to Claim 18,
wherein
an aqueous solution of the organic phosphoric acid ester is applied.
22. (Currently Amended) The method according to Claim 18 ,
wherein
[[a]] the solution [[is]] applied ~~which contains~~ includes the organic phosphoric acid ester
in a concentration from 0.1 to 15% by weight ~~and in particular 3 to 8% by weight.~~
23. (Currently Amended) The method according to Claim 18,
wherein
the pH of the solution is adjusted to a value of 6.5 to 11, ~~in particular 7.5 to 9.5.~~
24. (Currently Amended) The method according to Claim 18,
wherein

[[a]] the solution [[is]] applied ~~which contains~~ includes as further components a water-soluble organic sulphur compound, ~~in particular one of the compounds described in Claim 5 or 6,~~ and/or an organic molybdenum compound, ~~in particular one of the compounds described in Claim 7.~~

25. (Currently Amended) The method according to Claim 24,

wherein

[[a]] the solution [[is]] applied ~~which contains~~ includes the water-soluble organic sulphur compound(s) and/or organic molybdenum compound(s) in a quantity from 1 to 50% by weight, ~~in particular from 5 to 25% by weight,~~ related to the quantity of phosphoric acid ester.

26. (Currently Amended) The method according to Claim 18 ~~any one of claims 18 to 25,~~
~~characterised in that~~

wherein

[[a]] the solution [[is]] applied ~~which contains~~ includes as further components at least one ~~of the~~ inorganic compounds from the group consisting of polyphosphates, borates, molybdates and wolframates described in Claims 8.

27. (Currently Amended) The method according to Claim 26,

wherein

[[a]] the solution [[is]] applied ~~which contains~~ includes the inorganic compounds in a quantity from 1 to 50% by weight, ~~in particular from 5 to 10% by weight,~~ related to the quantity of phosphoric acid ester.

28. (Previously Presented) The method according to Claim 18,

wherein

the sheet is dried before the lubricant is applied.

29. (Previously Presented) The method according to Claim 18 wherein use is made as the lubricant of corrosion protection oil, pre-lube, and/or dry-lube.
30. (Currently Amended) The method according to Claim 18, wherein the lubricant is applied in a quantity from 0.3 to 3.0 g/m², ~~in particular 1 to 2 g/m².~~
31. (Currently Amended) The use of a solution containing an organic phosphoric acid ester, ~~in particular an organic phosphoric acid ester described in Claim 2,~~ for the treatment of metal surfaces.
32. (Currently Amended) [[The]] An aqueous solution for the treatment of metal surfaces containing comprising the organic phosphoric acid ester of Claim 2, and the a water-soluble organic sulphur compound of Claim 5- selected from the group consisting of thiadiazolene, dithiocarbamates and dithiopropionates as well as salts and derivatives thereof.[,] and molybdenum trioxide and/or molybdenic acid the organic molybdenum compound of Claim 7.
33. (Currently Amended) The aqueous solution according to Claim 32, ~~characterised in that this contains as further comprising components at least one of the organic compounds selected from the group consisting of polyphosphates, borates, molybdates and wolframates described in Claim 8.~~
34. (Currently Amended) [[The]] A concentrate for the manufacture of a solution for the treatment of metal surfaces according to Claim 32.

(Currently Amended) The use of a metal sheet or metal sheet section according to Claim 1, for the manufacture of metal bodies by forming, ~~in particular by deep drawing.~~